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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Haijun Wu

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EXAMINER

CLAWSON, STEPHEN J

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

08/06/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/585,798	Applicant(s) WU, HAIJUN	
	Examiner STEPHEN J. CLAWSON	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3, 5, 6 and 8 is/are rejected.
- 7) ☒ Claim(s) 4, 7 and 9-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/13/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (**2003/0099239**).

Regarding claim 1, Kim discloses a bandwidth expanded Digital Subscriber Line Access Multiplexer (DSLAM) for multicasting video service, comprising:

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a main control board, **(fig. 4 'MCU' Main controller unit)** subscriber interface boards **(Fig. 4, 'ATU' ADSL Transceiver Unit; 'STU' SHDSL Terminal Unit; 'VTU' VDSL Terminal Unit; 'LTU' LAN Terminal Unit)** and a data bus which is connected between the main control board and each of the subscriber interface boards; **(Fig. 4 '180', '181', '182', '183', and '184')**

wherein the DSLAM further comprises a video bus which is connected between the main control board and each of the subscriber interface boards, and wherein the video bus **(Fig. 4 '180', '181', '182', '183', and '184')** is configured to transmit a video service stream. **(Kim para. 52 and para. 91; Multiple bus lines are used to transmit data including video.)**

Regarding claim 5, Kim discloses the bandwidth expanded DSLAM according to claim 1, wherein the video bus comprises one set of bus or multiple sets of buses **(Fig. 4 '180', '181', '182', '183', and '184')** carrying different video channels of the video service stream. **(Kim para. 52 and para. 91; Multiple bus lines are used to transmit data including video.)**

Regarding claim 6, Kim teaches the bandwidth expanded DSLAM according to claim 1, wherein the video bus is Gigabit Ethernet (GE) bus or Cell bus. **(See Kim para. 87, fig. 4; '180' and '181' is a cell bus.)**

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (2003/0099239), and further in view of Ramaswamy (**WIPO Publication WO 01/95569 A2**).

Regarding claim 2, Kim discloses the bandwidth expanded DSLAM according to claim 1. Kim does not explicitly disclose wherein the DSLAM further comprises a multicasting distributor module; the main control board comprises a data processing module and a control module connected with the data processing module; the data processing module outputs the video service stream to an input of the multicasting distributor module, and an output of the multicasting distributor module is connected to the video bus. However, Ramaswamy does. **(See Ramaswamy; Ramaswamy discloses a DSLAM for distribution of audio, video over a DSL network. (pg. 2 lines 5-10) The method provides for multicast delivery of information between a single source and multiple subscriber interface destination ports (boards). (pg. 2 lines 15-20) Fig. 2 shows a representation of the main controller board bus connecting each of the subscriber interface boards.)** Therefore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to combine

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a DSLAM that contains multiple busses with a DSLAM that multicasts. One would make the combination in order to more efficiently use bandwidth.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2003/0099239), and further in view of Applicant's own admitted prior art.

Regarding claim 3, Kim discloses the bandwidth expanded DSLAM according to claim 1. Kim does not disclose wherein the video bus is point-to-point star bus. However, Applicant admits the use of a point-to-point star bus in a DSLAM where the output of the multicasting distributor module is respectively connected to a data processing module in each subscriber interface board; the multicasting distributor module is used for duplicating the inputted video service stream and outputting to each subscriber interface board, respectively. **(Applicant fig. 3)** Therefore it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to combine Kim's multi-bus DSLAM with Applicant's admitted prior art which includes a DSLAM that has a point-to-point star bus. One would make the combination in order to more efficiently utilize bandwidth.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (2003/0099239).

Regarding claim 8, Kim teaches a transmission method for bandwidth expanded DSLAM comprising,

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Connecting a main control board and each of subscriber interface boards in the DSLAM with a video bus, wherein the video bus is configured to transmit a video service stream and **(Kim fig. 4 '180', '181', '182', '183', and '184')**

Kim does not explicitly disclose detecting whether a service from a network interface is the video service stream by the main control board; if it is, transmitting to each subscriber interface board through the video bus in the DSLAM, otherwise transmitting it through a data bus. However, one of ordinary skill in the art would recognize that that any of the disclosed busses of Kim **(Kim fig. 4 '180', '181', '182', '183', and '184')** could be used for video or data. Para. 64 elicits some of the features of each bus which could be exploited based on the traffic sent. **(Kim para. 64)**

Allowable Subject Matter

5. Claims 4, 7, and 9-13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN J. CLAWSON whose telephone number is (571)270-7498. The examiner can normally be reached on M-F 7:30-5:00 pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN J. CLAWSON/
Examiner, Art Unit 2416

/Huy D Vu/

Supervisory Patent Examiner, Art Unit 2416